

REMARKS

Claims 1 and 4-10 remain pending in this application. Claim 1 is independent. In light of the amendments and remarks made herein, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections.

In the outstanding Official Action, the Examiner rejected claims 1 and 4-10 under 35 U.S.C. § 112, second paragraph; rejected claims 1, 4, 5, and 8-10 under 35 U.S.C. § 102(e) as being anticipated by *Foster et al.* (USP 6,140,215); rejected claims 6-7 under 35 U.S.C. § 103(a) as being unpatentable over *Foster et al.*; and rejected claims 6-7 under 35 U.S.C. § 102(e) as being anticipated by *Yamazaki et al.* (USP 5,932,302). Applicants respectfully traverse these rejections.

Claim Rejections - 35 U.S.C. § 112

With regard to the Examiner's rejection of claims 1 and 4-10 under 35 U.S.C. § 112, second paragraph, Applicants have amended claim 1 to more appropriately recite the present invention. It is respectfully submitted that these amendments are being made without conceding the propriety of the Examiner's rejections, but merely to timely advance the prosecution of the present invention. Based upon these amendments, it is respectfully requested that the outstanding rejections be withdrawn.

Claim Rejections - 35 U.S.C. § 102 - *Foster et al.*

With regard to the Examiner's rejection of claims 1, 4, 5, and 8-10 under 35 U.S.C. § 102(e) as being anticipated by *Foster et al.*, Applicants have amended claim 1 to provide for setting a variable frequency and setting the plasma processing gas to a pressure such that it relies on the variable frequency that has been set.

In response to Applicants' arguments filed on February 6, 2003, the Examiner asserts that *Foster et al.*'s examples in tables 4-6 teach $P=5$ Torr and $f=450$ KHz, therefore giving $450 \text{ KHz}(10^3 \text{ Hz}/1 \text{ KHz})(2 \times 10^{-7} \text{ Torr/Hz}) = 0.09 \text{ Torr}$ which is $\leq 500 \text{ Torr}$, thus satisfying the claimed empirical formula. The Examiner further asserts that one is not required to use a formula to define parameters to employ, only to satisfy it. Applicants respectfully disagree with the Examiner's assertions.

Based on the claim amendments made herein, claim 1 clearly indicates that a variable frequency of high frequency power $f(\text{Hz})$ is set and the plasma processing gas is set to pressure $P(\text{Torr})$ where $P(\text{Torr})$ satisfies the following relationship: $2 \times 10^{-7}(\text{Torr/Hz}) \times f(\text{Hz}) \leq P(\text{Torr}) \leq 500(\text{Torr})$. As such, it is respectfully submitted that in order to anticipate the invention set forth in claim 1, the prior art reference must teach setting the variable frequency of high frequency power $f(\text{Hz})$ and setting the plasma

processing gas to pressure P(Torr) where P(Torr) satisfies the relationship as set forth in the claim. While the Examiner asserts that *Foster et al.* provides examples where the pressure and the frequency happen to satisfy the relationship, it is respectfully submitted that *Foster et al.* fails to teach or suggest the relationship as set forth in claim 1. As such, it is respectfully submitted that claim 1 is not anticipated by *Foster et al.*, and it is respectfully requested that the outstanding rejection be withdrawn.

Claim Rejections - 35 U.S.C. § 102 - *Yamazaki et al.*

~~-----With regard to the Examiner's rejection of claims 6-7 under 35~~
U.S.C. § 102 as being anticipated by *Yamazaki et al.*, Applicants respectfully submit that that this rejection is an improper rejection because claims 6 and 7 depend, either directly or indirectly, upon claim 1. It is improper for the Examiner to reject dependent claims under 35 U.S.C. § 102 by citing a second reference to teach additional claimed elements while a first reference is used to reject the base claim.

It is respectfully submitted that the proper statutory basis for rejecting dependent claims 6 and 7 utilizing the *Foster et al.* reference and the *Yamazaki et al.* reference is 35 U.S.C. § 103. As such, it is respectfully requested that the outstanding rejection be withdrawn.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Catherine M. Voisinet (Reg. No. 52,327) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37-C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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